

California Regional Water Quality Control Board
Santa Ana Region
3737 Main Street, Suite 500
Riverside, CA 92501-3348

NOTICE OF PUBLIC HEARING

For
RESOLUTION NO. R8-2006-0042
ORDER NO. R8-2006-0005

For
**INITIAL STUDY AND NEGATIVE DECLARATION AND ISSUANCE OF GENERAL WASTE
DISCHARGE REQUIREMENTS FOR DISCHARGE OF SALTS THROUGH THE
INJECTION/PERCOLATION OF IMPORTED STATE PROJECT WATER, COLORADO RIVER
WATER OR IMPORTED WELL WATER TO RECHARGE GROUNDWATER MANAGEMENT
ZONES WITHIN THE SANTA ANA REGION**

On the basis of preliminary staff review and application of lawful standards and regulations, the California Regional Water Quality Control Board, Santa Ana Region (hereinafter Regional Water Board), proposes to adopt an initial study and negative declaration and issue general waste discharge requirements for the injection/percolation of imported State Project Water, Colorado River water or imported well water to recharge groundwater management zones within the Santa Ana Region.

The Board is seeking comments concerning the proposed initial study and negative declaration and general waste discharge requirements and the potential effects of the discharges on the water quality and beneficial uses of the affected receiving waters.

The Board will hold a public hearing to consider adoption of the proposed waste discharge requirements as follows:

DATE: July 14, 2006
TIME: 9:00 a.m.
PLACE: City Council Chambers of Santa Ana
22 Civic Center Plaza
City of Santa Ana

Interested persons are invited to submit written comments on the proposed Resolution No. R8-2006-0042 and Order No. R8-2006-0005. Interested persons are also invited to attend the public hearing and express their views on issues relating to the proposed Order and submission. Oral statements will be heard, but should be brief to allow all interested persons time to be heard. For the accuracy of the record, all testimony (oral statements) should be submitted in writing.

Although all comments that are provided up to and during the public hearing on this matter will be considered, receipt of comments by June 26, 2006 would be appreciated so that they can be used in the formulation of the draft Order that will be transmitted to the Board two weeks prior to the hearing. The draft Order may contain changes resulting from comments received from the public. To view and/or download a copy of the draft Order, please access our website at www.waterboards.ca.gov/santaana on or after July 5, 2006.

The Board's proposed Order, related documents, and all comments and petitions received may be inspected and copied at the Regional Board office, 3737 Main Street, Suite 500, Riverside, CA 92501-3348 (phone 951-782-4130) by appointment scheduled between the hours of 9:00 a.m. and 3:00 p.m., Monday through Friday. Copies of the proposed Order will be mailed to interested persons upon request to J. Shami (951) 782-3288.

Any person who is physically challenged and requires reasonable accommodation to participate in this Regional Board Meeting should contact Felipa Carrillo at (951) 782-3285 no later than July 8, 2006.

California Regional Water Quality Control Board
Santa Ana Region

July 14, 2006

Staff Report

ITEM:

SUBJECT: General Waste Discharge Requirements for the discharge of salts through injection/percolation of imported State Project Water, Colorado River Water or imported well water to recharge groundwater management zones within the Santa Ana Region – Groundwater Replenishment Projects Order No. R8-2006-0005

I DISCUSSION:

Background

The Regional Water Board adopted a revised Water Quality Control Plan for the Santa Ana Region (hereinafter Basin Plan) that became effective on January 24, 1995. The Basin Plan designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters in the Santa Ana Region addressed through the plan. More recently, the Basin Plan was amended significantly to incorporate revised boundaries for groundwater subbasins, now termed “management zones”, new nitrate-nitrogen and TDS objectives for the new management zones, and new nitrogen and TDS management strategies applicable to both surface and ground waters. The Regional Water Board adopted the Basin Plan Amendment on January 22, 2004. The State Water Resources Control Board (State Water Board) and Office of Administrative Law (OAL) approved the Amendment on September 30, 2004 and December 23, 2004, respectively. The surface water standards provisions of the Amendment are awaiting approval by the U.S. Environmental Protection Agency but do not bear significantly on these proposed general waste discharge requirements. This Order implements provisions of the Amendment that are related to groundwater management zones.

The Nitrogen/TDS Basin Plan Amendment was the culmination of a multi-year, multi-million dollar (\$3.5+M) effort sponsored by the N/TDS Task Force, with extensive participation by and close coordination with Regional Board staff. The Task Force included 22 water supply and wastewater management agencies and other stakeholders throughout the Region. The effort was initiated because of concerns that (1) the nitrate-nitrogen and TDS groundwater quality objectives specified in the Basin Plan had been established in a relatively short time in early (1970s) basin planning work for the Region and might not have benefited from a high level of scientific rigor, and (2) the established objectives would likely place significant restrictions on wastewater recycling, which was expected to be increasingly needed to meet the Region’s rapidly growing demand for water supply.

The Task Force’s recommendations for changes to the Basin Plan, including new groundwater management zones, new TDS and nitrate-nitrogen objectives for those zones and revised TDS and nitrogen management strategies, were the result of intensive, rigorous scientific evaluation of relevant water quality, geologic and hydrologic data. In addition, as described next, certain

members of the Task Force pursued evaluations and developed recommendations based on consideration of the requirements of the State's antidegradation policy (SWRCB Resolution No. 68-16), leading to the development of "Maximum Benefit" TDS and nitrate-nitrogen objectives and water resource management commitments for specific groundwater management zones.

Several agencies proposed that alternative TDS and/or nitrate-nitrogen water quality objectives less stringent than those developed by the Task Force based on historical water quality (the so-called "antidegradation" objectives) be adopted for specific groundwater management zones. The underlying intent of these proposals was to assure that the TDS and nitrate-nitrogen objectives for specific management zones were consistent with and would accommodate the water and wastewater resource management plans of the involved agencies, including the use of recycled water for groundwater recharge and reuse. Since the less stringent objectives would allow a lowering of water quality, the agencies were required to satisfy antidegradation requirements, that is, to demonstrate that their proposed objectives would protect beneficial uses, and that water quality consistent with maximum benefit to the people of the state would be maintained.

Appropriate beneficial use protection/maximum benefit demonstrations were made by the Chino Basin Watermaster/Inland Empire Utilities Agency, the Yucaipa Valley Water District and the City of Beaumont/San Timoteo Watershed Management Authority to justify alternative "maximum benefit" objectives for the Chino North, Cucamonga, Yucaipa, Beaumont and San Timoteo groundwater management zones. These "maximum benefit" proposals, which are described in detail in Chapter 5 – Implementation of the Amended Basin Plan, entail commitments by the agencies to implement specific projects and programs. While these agencies' efforts to develop these proposals indicate their strong interest to proceed with these commitments, unforeseen circumstances may impede or preclude it. To address this possibility, the Basin Plan Amendment included both the "antidegradation" and "maximum benefit" objectives for the subject groundwater management zones (See Table 4-1 of the amended Basin Plan, included in this general WDR as Attachment A). Chapter 5 of the amended Basin Plan specifies the requirements for implementation of these objectives. Provided that these agencies' commitments are met, then the agencies have demonstrated maximum benefit, and the "maximum benefit" objectives included in Table 4-1 of the amended Basin for these waters apply for the purposes of regulating projects by these agencies (and other recharge project proponents whose projects are found consistent with the maximum benefit programs; see further discussion below). ~~regulatory purposes.~~ However, if the Regional Board finds that these commitments are not being met and that "maximum benefit" is thus not demonstrated, then the "antidegradation" objectives for these waters will apply. Chapter 5 of the amended Basin Plan also describes the mitigation requirements that will apply should discharges based on "maximum benefit" objectives occur unsupported by the demonstration of "maximum benefit".

Another key component of the N/TDS Task Force effort was the characterization of current ambient quality for TDS and nitrate-nitrogen in the groundwater management zones. Current ambient water quality was defined as the 20-year average of TDS and nitrate-nitrogen data for each management zone from 1978 through 1997. Current ambient quality is compared to the water quality objectives for the groundwater management zones to determine whether there is TDS and/or nitrate-nitrogen assimilative capacity in each of the management zones (Tables 5-3 and 5-4 of the amended Basin Plan). Findings regarding assimilative capacity have great regulatory importance. Where no assimilative capacity exists, i.e., where current quality is poorer than the objectives, TDS and nitrate-nitrogen discharges must be held to the groundwater

management zone objectives, unless Regional Board approved TDS and/or nitrate-nitrogen offset programs that assure effective compliance with objectives are implemented. Where there is assimilative capacity, i.e., where current TDS and/or nitrate-nitrogen quality is better than the objectives, salt discharges must be held to current quality, unless antidegradation requirements are satisfied.

Rationale for Issuance of the Proposed Waste Discharge Requirements

Importation of State Project Water (SPW) and Colorado River Water (CRW) has long been a key part of the water supply plan within the Region. With the recent completion of new water conveyance systems, a number of agencies plan to increase recharge of groundwater management zones in the Santa Ana Region with these imported sources of supply when they are plentiful. In addition, water supply agencies are investigating the feasibility of importing or transferring groundwater pumped from one management zone for use/recharge in other areas of the Region. These agencies also plan to extract this stored water when potable water demand is high. These projects include those proposed by Elsinore Valley Municipal Water District for the Back Basin Groundwater Storage Project, Eastern Municipal Water District's Grant Avenue Recharge Project, and the San Geronio Pass Water Agency's Brookside South Streambed Recharge Project. Other projects are in the planning stages.

To date, the Regional Board has not regulated groundwater recharge projects using imported SPW, CRW or well waters, even where the concentrations of nitrogen, TDS (or other) constituents exceeded relevant Basin Plan objectives and/or current ambient quality. However, given the increased number and magnitude of the water recharge projects being contemplated, and in view of the extensive commitments that have been and will be made by dischargers and other stakeholders in the Region to develop and implement the new TDS and nitrate-nitrogen objectives, it is appropriate and in fact legally required to assure that those projects are consistent with the objectives and with the antidegradation policy. Otherwise, Basin Plan objectives and/or antidegradation requirements could be violated and the TDS and nitrate-nitrogen management activities undertaken by certain stakeholders could be compromised by the recharge activities of others. To assure that imported water groundwater recharge projects do not cause or contribute to violations of applicable water quality standards and antidegradation requirements, ~~particularly the established groundwater objectives for Total Dissolved Solids (TDS) and nitrate-nitrogen~~, staff recommends the adoption of Order No. R8-2006-0005.

~~The proposed Order requires prospective dischargers to file: (a) a Notice of Intent (NOI) to comply with the terms and conditions of these General Waste Discharge Requirements (WDRs) or a report of waste discharge (ROWD); (b) the applicable first annual fee as required by Title 23, CCR, Section 2200; (c) a project map; (d) evidence of California Environmental Quality Act (CEQA) compliance; and (e) a monitoring plan. In addition, for projects that would affect groundwater management zones for which both maximum benefit and antidegradation TDS and nitrate-nitrogen objectives have been established in the Basin Plan ("maximum benefit management zones", the proposed Order requires dischargers to file with the NOI (or ROWD) documentation that demonstrates that the project is consistent with the applicable maximum benefit programs and commitments identified in the Basin Plan. This requirement may be satisfied by the submittal of a letter from the agency (ies) responsible for the maximum benefit programs for the affected groundwater management zones that confirms that the proposed project(s) is consistent with the maximum benefit program.~~

~~Upon review of the NOI (or ROWD) by Regional Board staff, a determination will be made as to whether or not coverage under these General WDRs is appropriate. The Regional Board's Executive Officer would issue a discharge authorization letter to the discharger after staff has determined that proposed discharges/recharge can be covered under these General WDRs. If proposed discharges recharge cannot be regulated under these general WDRs, the discharger will be notified by a letter from the Regional Board's Executive Officer or designee and alternative discharge requirements will be drafted. Where a proposed project that would affect groundwater maximum benefit management zones is not consistent with the maximum benefit program, Board staff will recommend waste discharge requirements that require compliance with the antidegradation TDS and nitrate-nitrogen water quality objectives.~~

II. REGULATORY BASIS FOR WASTE DISCHARGE REQUIREMENTS

This Order includes requirements that implement the Water Quality Control Plan (Basin Plan), which was adopted by the Regional Board on March 11, 1994. The Basin Plan was approved by the Office of Administrative Law and became effective on January 24, 1995. On January 22, 2004, the Regional Water Board adopted Resolution No. R8-2004-0001, amending the Basin Plan to incorporate revised boundaries for groundwater subbasins, now termed "management zones", new nitrate-nitrogen and TDS objectives for the new management zones, and new nitrogen and TDS management strategies applicable to both surface and ground waters. The amendment also included findings of TDS and nitrate-nitrogen assimilative capacity in the management zones. The State Water Resources Control Board and Office of Administrative Law (OAL) approved the N/TDS Amendment on September 30, 2004 and December 23, 2004, respectively.

The ~~Basin~~ Plan specifies water quality objectives and beneficial uses for the waters of the Santa Ana Region.

The existing and potential beneficial uses of underlying groundwater management zones in the Santa Ana Region include municipal and domestic supply, agricultural supply, industrial process supply, and industrial service supply.

The proposed Order specifies numeric and narrative limits for the constituents expected to be present in the ~~water used for rechargedischarges~~. The specified limits are consistent with the Basin Plan objectives and ~~antidegradation~~~~other state~~ requirements. The TDS limits and two sets of TIN limits (one set that applies to discharges of nitrogen resulting from reinjection and one that applies to discharges of nitrogen resulting from recharge/percolation) are shown in Attachment A to the Order. The TIN limits applicable to recharge/percolation projects reflect the application of the nitrogen loss coefficient authorized in the amended Basin Plan (see Chapter 5, Implementation, TDS and Nitrogen Management, III. TDS/Nitrogen Management Plan, B. TDS and Nitrogen Regulation, 3. Nitrogen Loss Coefficients). This nitrogen loss coefficient does not apply to establishing limits for nitrogen discharges resulting from reinjection. For both TDS and TIN, the limits are generally based on the water quality objectives or on current ambient quality, whichever is more restrictive. The exception is the limits applicable to groundwater management zones with maximum benefit objectives. In these cases, the limits are based on the maximum benefit objectives even where current ambient quality is better than the objectives. This is appropriate because antidegradation requirements were satisfied in establishing the maximum benefit objectives.

Some recharge projects are or may be proposed for groundwater management zones without assimilative capacity for TDS and/or nitrate-nitrogen. In these cases, discharges of TDS and/or nitrogen must be limited to the groundwater management zone objectives. In some instances however, the TDS or nitrogen quality of the imported water proposed for recharge may exceed the TDS or nitrate-nitrogen water quality objectives for the specific groundwater management zone where the groundwater recharge is to occur. In these circumstances, project proponents have proposed or may propose to divert storm runoff into the recharge basins to assure that recharge of the combined flows meets the TDS and/or nitrogen TN-objectives of the groundwater management zone. This Order allows proponents to flow weight the TDS or nitrogen TN quality of surface water and storm water for recharge.

For those groundwater management zones where assimilative capacity for TDS and/or nNitrate-nNitrogen isare available without maximum benefit program implementation (see Tables 5-3 and 5-4 of the amended Basin Planon page 40 and 41 of the Attachment to Resolution No. R8-2004-0001), this Order requires compliance with TDS and nitrate-nitrogen limits based on current ambient quality. Where a recharge project proponent proposes the use of water that contains TDS and/or nitrate-nitrogen in excess of current ambient quality, coverage under separate requirements will be necessary. Separate Regional Board consideration of appropriate TDS and nitrate-nitrogen limitations for such projects is necessary to determine whether or not it is appropriate to allocate some of the available assimilative capacity to the proposed project, and, if so, how much. These project proponents will be required to demonstrate that the project complies with antidegradation requirements. It must be determined whether and to what extent the proposed project will result in a lowering of water quality and, if so, whether (1) beneficial uses will continue to be protected and (2) the lowering of water quality is of maximum benefit to the people of the state. uses the ambient TDS and Nitrate-Nitrogen concentration as the recharge limits. Recharge proponents who cannot comply with recharge limitations of this Order and/or who would like to avail of the assimilative capacity for TDS and Nitrate-Nitrogen of the specific groundwater management zone will be required to apply for an individual waste discharge requirements, provide documentation that the proposed recharge project will comply with the Antidegradation Policy of the State and demonstrate that the proposed recharge will not affect groundwater quality and beneficial uses.

The maximum benefit programs of the Chino Basin Watermaster/Inland Empire Utilities Agency, the Yucaipa Valley Water District and the City of Beaumont/San Timoteo Watershed Management Authority generally result in higher maximum benefit management zone water quality objectives that create assimilative capacity for TDS and nitrate-nitrogen in the affected management zones (the single exception is the Chino North Management Zone; in this zone, no assimilative capacity for nitrate-nitrogen exists under either the maximum benefit or antidegradation objective scenario; see Tables 5-3 and 5-4 of the amended Basin Plan). In the absence of the maximum benefit programs, the antidegradation objectives apply to the affected management zones and no assimilative capacity for either TDS or nitrate-nitrogen exists in these management zones. The Basin Plan specifies that the assimilative capacity created by maximum benefit program implementation is to be allocated solely to the agencies responsible. Taken together, these circumstances mean that there is no assimilative capacity available for recharge projects by other agencies; salt discharges resulting from these projects would be regulated pursuant to the antidegradation water quality objectives for these management zones. However, if the maximum benefit agencies confirm that proposed recharge projects by other proponents are consistent with their maximum benefit programs, then salt discharges resulting from these

other projects would be regulated pursuant to the discharge limitations based on the maximum benefit objectives.

Monitoring is the primary means of ensuring that waste discharge requirements are met. It is also the basis for enforcement actions against dischargers who are in violation of the waste discharge requirements issued by the Regional Board. All dischargers enrolled under this general permit will be required to conduct monitoring in accordance with a monitoring program issued by the Executive Officer. Each monitoring and reporting program will be customized for each enrollee based on the characteristics of the water to be used for recharge. The typical required constituents and frequency of analyses are tabulated in the self-monitoring program attached to this general permit as "Typical Monitoring and Reporting Program (MR&P) No. R8-2006-0005." This monitoring and reporting program will be revised as appropriate for each discharger. An increase of the parameters or frequency of monitoring will be required if monitoring data show the presence of specific pollutants of concern that are not limited in this Order. This Order may be reopened to include effluent limitations for such constituents. A reduction of the parameters or frequency of monitoring may be implemented with prior approval of the Executive Officer when monitoring data demonstrate that such reduction is warranted.

The Order also requires the discharger to monitor for Total Trihalomethanes (THM)¹, 1-4 Dioxane, Methyl-tert-butyl ether (MTBE), Perchlorate and N-Nitrosodimethylamine (NDMA) on a quarterly basis. These constituents have been determined to be present in imported water at low concentrations. If any of these constituents are detected at levels above the concentrations shown in the Table below, the discharger will be required to accelerate monitoring for that specific constituent to monthly. If the detected concentrations are persistent and considerable², the discharger may be required to implement measures to reduce discharges of such constituent(s) into the ground and apply for an individual permit.

Parameter	Concentration (ug/L)
1-4 Dioxane	3 ³
N-Nitrosodimethylamine (NDMA)	0.01 ³
Perchlorate	6 ³
Methyl-tert-butyl ether (MTBE)	13 ⁴
Total Trihalomethanes (THM)	100 ⁴

This Order requires the discharger to conduct an annual monitoring of constituents with primary contaminant levels (MCLs) and secondary MCLs. If any of these constituents are detected in the annual scan at levels above the MCLs, the discharger is required to conduct accelerated monitoring for that specific constituent to determine whether such parameters are persistent and considerable and should be limited in this Order.

The proposed Order requires prospective dischargers to file: (a) a Notice of Intent (NOI) to comply with the terms and conditions of these General Waste Discharge Requirements (WDRs).

¹ Sum of bromodichloromethane, dibromochloromethane, bromoform and chloroform

² Persistent and considerable is defined as being detected at levels 10 times the concentration shown in the table for three consecutive months during the accelerated monitoring.

³ Based on CDHS' notification Level

⁴ Based on CDHS' MCL

or a report of waste discharge (ROWD); (b) the applicable first annual fee as required by Title 23, CCR, Section 2200; (c) a project map; (d) evidence of California Environmental Quality Act (CEQA) compliance; and (e) a monitoring plan. In addition, for projects that would affect groundwater management zones for which both maximum benefit and antidegradation TDS and nitrate-nitrogen objectives have been established in the Basin Plan (“maximum benefit management zones”, the proposed Order requires dischargers to file with the NOI (or ROWD) documentation that demonstrates that the project is consistent with the applicable maximum benefit programs and commitments identified in the Basin Plan. This requirement may be satisfied by the submittal of a letter from the agency (-ies) responsible for the maximum benefit programs for the affected groundwater management zones that confirms that the proposed project(s) is consistent with the maximum benefit program.

Upon review of the NOI (or ROWD) by Regional Board staff, a determination will be made as to whether or not coverage under these General WDRs is appropriate. The Regional Board’s Executive Officer would issue an authorization letter to the project proponent after staff has determined that proposed salt discharges resulting from imported water recharge can be covered under these General WDRs. If the proposed salt discharges associated with the recharge cannot be regulated under these general WDRs, the discharger will be notified by a letter from the Regional Board’s Executive Officer or designee and alternative salt discharge requirements will be drafted.

The proposed ~~discharge-recharge~~ limitations for discharges of salts resulting from recharge activities and the proposed monitoring and reporting program should be adequate to protect the beneficial uses of the waters in the area.

RECOMMENDATION:

Adopted Order No. R8-2006-0005 as presented.

Comments were solicited from the following:

State Water Resources Control Board, Office of the Chief Counsel – Jorge Leon
State Water Resources Control Board, Division of Water Quality – Jim Maughan
State Department of Water Resources - Glendale
State Department of Health Services, Santa Ana –
State Department of Health Services, San Bernardino – Sean McCarthy
State Department of Health Services, San Diego – Steven Williams
Orange County Public Facilities and Resources Department - Chris Crompton
Orange County Health Care Agency - Seth Daugherty
Orange County Water District – Nira Yamachika
Riverside County Environmental Health Department - Sandy Bonchek
San Bernardino County Department of Public Works, Environmental Management Division – Naresh Varma
San Bernardino County Environmental Health Department – Daniel Avera
South Coast Air Quality Management District - Barry Wallerstein
Orange County Coastkeeper – Garry Brown
Lawyers for Clean Water C/c San Francisco Baykeeper
Elsinore Valley Municipal Water District
Yucaipa Valley Water District

City of Beaumont – Alan Kapanicas
Inland Empire Utilities Agency – Patrick O. Shields
Santa Ana Watershed Project Authority – Daniel Cozad
Santa Ana River Dischargers Association
San Geronio Pass Water Agency
Orange County Coastkeeper
Lawyers for Clean Water C/c San Francisco Baykeeper
Chino Basin Watermaster
San Timoteo Watershed Management Authority
Wildermuth Environmental Inc. – Mark Wildermuth
Attached mailing list

Mike Nusser
Eastern Municipal Water District
P.O. Box 8300
Perris, CA 92572-8300

Craig Elitharp
Rancho California Water Company
42135 Winchester Road
Temecula, CA 92590

Lisa Schulz/Doug Headrick
City of Redlands
P.O. Box 6903
Redlands, CA 92375

Peter Fox
City of Rialto
150 S. Palm Avenue
Rialto, CA 92376

Kerwin Russell
Riverside Corona Res. Conservation District
4500 Glenwood Drive, Building A
Riverside, CA 92501

Don Hough
Riverside Highland Water Company
1450 E. Washington Street
Colton, CA 92324

Owen Lu/Michele Loy
City of Riverside Public Utilities
2911 Adams Street
Riverside, CA 92504-

Riverside Water Quality Control Plant
5950 Acorn Street
Riverside, CA 92504

Steve Appel
Rubidoux Community Services District
P.O. Box 3098
Rubidoux, CA 92519-3098

Charles Moorees/Sharee Thumar
San Antonio Water Company
139 N. Euclid Avenue
Upland, CA 91786

Sam Fuller
San Bernardino Valley Municipal Water Dist
P.O. Box 5908
San Bernardino, CA 92412

Tom Crowley/Walter Christensen
San Bernardino Valley Wtr Conserv District
P.O. Box 1839
Redlands, CA 92373

Stacey Alstadt
City of San Bernardino MWD
300 N. D Street, 5th Floor
San Bernardino, CA 92418

Jim Bryson
San Gabriel Valley Water Company
11579 Hadley Street
Whittier, CA 90606-1954

Peg Noble
San Gorgonio Pass Water Agency
1210 Beaumont Avenue
Beaumont, CA 92223

Steve Mains
Santa Ana Watershed Project Authority
16115 Sterling Avenue
Riverside, CA 92503

Ruth Beglin
Santa Margarita Watermaster
P.O. Box 631
Fallbrook, CA 92088

Mark Wiley
City of Upland
P.O. Box 460
Upland, CA 91786

Anthony W. Araiza
West Valley Water District
855 W. Baseline
Rialto, CA 92377

Steve Mains
Western Municipal Water District
450 Alessandro Boulevard
Riverside, CA 92508

Joe Zoba
Yucaipa Valley Water District
P.O. Box 730
Yucaipa, CA 92399-0730

Jeff Davis
San Gorgonio Pass Agency
1210 Beaumont Avenue
Beaumont, CA 92223

Mike Huffstutler
Bear Valley Mutual Water Company
101 E. Olive Avenue
Redlands, CA 92373

Chuck Butcher
Beaumont-Cherry Valley Water District
POBox 2037
Beaumont, CA 92223

Rod Watkins
Big Bear City Community Services District
POBox 558
Big Bear City, CA 92314

Jerry Gruber
Big Bear Lake, City of
POBox 1929
Big Bear Lake, CA 92315

Henry Johnson
Box Spring Mutual Water Co
21740 Dracaea Avenue
Moreno Valley, CA 92557

Timothy Keys
California Portland Cement
2025 E. Financial Way, Suite 200
Glendora, Ca 91741

Mike Malloy
AC-S Facilities, Office of Water Resources
Marine Corps Base, Box 555013
Camp Pendleton, CA 91730

Ken Manning
Chino Basin Watermaster
9641 San Bernardino Rd
Rancho Cucamonga, CA 91730

Glen Rojas
City of Chino
13220 Central Avenue
Chino, CA 91710

Mike Medina
City of Colton
650 N. Lacadena Drive
Colton, CA 92324

West Curry
City of Corona
730 Corporation Yard Way
Corona, CA 92880

Robert Deloach
Cucamonga Valley Water District
10440 Ashford St.
Rancho Cucamonga, CA 91730

Brian Tompkins
East Valley Water District
3654 E. Highland Avenue, Suite 18
Highland, CA 92346

Tony Pack
Eastern Municipal Water District
POBox 8300
Perris, CA 92572

Robin Gray
Elsinore Valley Municipal Water District
POBox 3000
31315 Chaney St
Lake Elsinore, CA 92531

Ken Hunt
Fontana Water Company
8353 Sierra Ave.
Fontana, CA 92335

Ross Lewis
Gage Canal Co.
7452 Dufferin Ave.
Riverside, CA 92504

Jaime Halcovich
Geologic Associates
250 W. First St., Suite 228
Claremont, CA 91711

David Altman
City of Hemet
445 E. Florida Avenue
Hemet, CA 92543

Carole McGrevy
Jurupa Community Services District
11201 Harrel St.
Mira Loma, CA 91752

Tom Wagoner
Lake Hemet Municipal Water District
2480 E. Florida Ave.
Hemet, CA 92544

Russ Handy
City of Loma Linda
25541 Barton Road
Loma Linda, Ca 92354

Glenville Allen
Loma Linda University
11100 Anderson St.
Loma Linda, Ca 92354

Joe Iomeli
Western Municipal Water District
450 Alessandro Blvd.
Riverside, CA 92517

Bill Thompson
City of Norco
1281 5th Street
Norco, Ca 92517

Cari Dale
City of Ontario
303 E. "B" St.
Ontario, CA 91764

Robert Kinne
Devore Water Co.
18185 Kenwood Ave.
Devore, CA 92407

Ken Hackmann
City of Chino Hills
2001 Grand Avenue
Chino Hills, CA 91709

Greg Galindo
Monte Vista County Water District
POBox 71
Montclair, CA 91763

Carol Wilson
California Dept. of Toxic Substances
Control
3450 Pyrite Rd.
Riverside, Ca 92509

California Regional Water Quality Control Board
Santa Ana Region

Order No. R8-2006-0005

GENERAL WASTE DISCHARGE REQUIREMENTS FOR THE DISCHARGE OF SALTS THROUGH INJECTION/PERCOLATION OF IMPORTED STATE PROJECT WATER, COLORADO RIVER WATER OR IMPORTED WELL WATER TO RECHARGE GROUNDWATER MANAGEMENT ZONES WITHIN THE SANTA ANA REGION – GROUNDWATER REPLENISHMENT PROJECTS

The California Regional Water Quality Control Board, Santa Ana Region (hereinafter Regional Water Board), finds that:

1. The Regional Water Board adopted a revised Water Quality Control Plan for the Santa Ana Region (hereinafter Basin Plan) that became effective on January 24, 1995. The Basin Plan designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters in the Santa Ana Region addressed through the plan. More recently, the Basin Plan was amended significantly to incorporate revised boundaries for groundwater subbasins, now termed “management zones”, new nitrate-nitrogen and TDS objectives for the new management zones, and new nitrogen and TDS management strategies applicable to both surface and ground waters. New findings regarding TDS and nitrate-nitrogen assimilative capacity were also included. This Basin Plan Amendment was adopted by the Regional Water Board on January 22, 2004. The State Water Resources Control Board (State Water Board) and Office of Administrative Law (OAL) approved the Amendment on September 30, 2004 and December 23, 2004, respectively. The surface water standards provisions of the Amendment are awaiting approval by the U.S. Environmental Protection Agency. The groundwater-related components of the N/TDS Amendment became effective upon approval by OAL. Accordingly, these waste discharge requirements implement relevant, groundwater-related components of the N/TDS Amendment.
2. The adoption of the N/TDS Amendment resulted from an intensive and scientifically rigorous effort by stakeholders throughout the Region to address nitrogen and TDS water quality objectives and management strategies. Given the increased number and magnitude of water recharge projects being contemplated in the Region, and in view of the extensive commitments that have been and will be made by dischargers and other stakeholders in the Region to develop and implement the new TDS and nitrogen objectives, it is appropriate, as well as legally necessary, to assure that those projects are consistent with the objectives and with the antidegradation requirements specified in Resolution No. 68-16. Failure to assure proper regulation of salt discharges resulting from recharge projects could result in violations of Basin Plan objectives and/or antidegradation requirements and compromise TDS and nitrogen management strategies implemented by other parties. The adoption of these general waste discharge requirements for salt discharges resulting from groundwater recharge projects will facilitate groundwater replenishment projects needed to assure a reliable water supply and will assure that such projects are conducted in accordance with the Basin Plan and anti degradation policy requirements.

3. The Board recognizes that the recharge of State Project Water is an important beneficial characteristic of a maximum benefit proposal and represents the best available supply source for imported water. This is demonstrated in the Board's draft of its "Guidance Document to Evaluate Compliance with California's Antidegradation Policy for Reclaimed Water Projects in the Santa Ana Watershed," dated October 2004, prepared as part of the work of the Nitrogen/TDS Task Force of Santa Ana Basin stakeholders, wherein it is stated that, "...recharge...best management practices...may include long-term commitments to import and store more State Project Water when the quality is relatively high."
 4. For regulatory purposes, it is appropriate to define TDS, nitrogen and other constituents present in water proposed for recharge as waste.
- 3.5. As shown in Chapter 4 of the Basin Plan as amended by the N/TDS Amendment, two sets of TDS and nitrate-nitrogen objectives have been adopted for certain groundwater management zones (Chino North, Cucamonga, Yucaipa, San Timoteo and Beaumont Groundwater Management Zones (GMZ)): the "maximum benefit" objectives and more stringent objectives based on historic ambient quality (the "antidegradation" objectives). The application of the "maximum benefit" objectives for these Management Zones is contingent on the implementation of commitments by identified responsible parties to implement specific water and wastewater resources management programs. These parties include the Chino Basin Watermaster and Inland Empire Utilities Agency (Chino North, Cucamonga GMZs), the City of Beaumont and the San Timoteo Watershed Management Authority (San Timoteo and Beaumont GMZs) and the Yucaipa Valley Water District (Yucaipa and San Timoteo GMZs). The maximum benefit commitments of these agencies are delineated in Chapter 5 of the Basin Plan, as amended by the N/TDS Amendment, and include compliance dates for the implementation of specific activities. These programs are part of a coordinated effort by the agencies to develop and implement projects that will assure reliable water supplies to meet rapidly increasing demands in this area.
- 4.6. This Order implements relevant portions of the N/TDS Amendment and antidegradation requirements by specifying effluent-limitations and other requirements based on the nitrate-nitrogen and TDS objectives for the groundwater management zones, or, where assimilative capacity is available without the implementation of maximum benefit programs, on current ambient nitrate-nitrogen and TDS quality. Where both "maximum benefit" and "antidegradation" objectives apply, effluent-limitations and other requirements based on both sets of objectives are specified. Provided that the maximum benefit commitments shown in the N/TDS Amendment are satisfied, then the requirements of the Order that address the "maximum benefit" objectives apply. If the Regional Board finds that the maximum benefit commitments are not being met, then the requirements of the Order that address the "antidegradation" TDS and nitrate-nitrogen objectives for these GMZ apply.

7. This Order specifies TDS limits and two sets of TIN limits: One that applies to discharges of nitrogen resulting from reinjection and another that applies to nitrogen discharges resulting from recharge/percolation. The TIN limits applicable to recharge/percolation projects reflect the application of the nitrogen loss coefficient specified in the Basin Plan. This coefficient does not apply to establishing limits for nitrogen discharges resulting from reinjection.
8. For both TDS and TIN, the limits are generally based on the water quality objectives or on current ambient quality, whichever is more restrictive. The exception is the limits applicable to groundwater management zones with maximum benefit objectives. In these cases, the limits are based on the maximum benefit objectives even where current ambient quality is better than the objectives. This is appropriate because antidegradation requirements were satisfied in establishing the maximum benefit objectives.
- ~~8.9.~~ For those recharge projects in areas where assimilative capacity for TDS or nitrate-nitrogen exists absent maximum benefit implementation and the recharge proponent proposes to use water that exceeds TDS and/or nitrate-nitrogen current ambient quality, separate salt discharge requirements will be considered. Separate consideration of appropriate requirements for such salt discharges is necessary to determine whether it is appropriate to allocate a part of the available assimilative capacity and, if so, how much. These project proponents must demonstrate that the proposed salt discharges associated with their projects will comply with antidegradation requirements. ~~wishes to avail of the TDS or Nitrate-Nitrogen assimilative capacity of the specific groundwater management zone, the recharge proponent shall apply for an individual waste discharge requirements.~~
10. Recharge projects are or may be proposed for groundwater management zones without assimilative capacity for TDS and/or nitrate-nitrogen. In these cases, discharges of TDS and nitrogen must be limited to the groundwater management zone objectives. However, the TDS and/or nitrogen quality of the imported water proposed for recharge may exceed the TDS or nitrate-nitrogen quality objectives for the management zone whether the groundwater recharge is to occur. In these circumstances, project proponents have proposed or may propose to divert storm runoff into the recharge basins to assure that recharge of the combined flows meets the TDS and nitrate-nitrogen objectives of the management zone. This Order allows proponents to flow weight the TDS or nitrogen quality of recharge water and storm water for recharge.
- ~~6.~~
~~5.11.~~ Entity(ies)/individual(s) proposing to discharges salts resulting from the recharge of State Project water, Colorado River water or other imported water, including well water, into groundwater management zones within the Santa Ana Region are hereinafter referred to as “discharger” and are subject to the terms and conditions of this Order.
- ~~6.12.~~ The existing and potential beneficial uses of underlying groundwater basins in the Santa Ana Region include:
 - a. Municipal and domestic supply,
 - b. Agricultural supply,

- c. Industrial service supply, and
- d. Industrial process supply.

7.13. The requirements contained in this Order are necessary to implement the Basin Plan.

8.14. Dischargers seeking coverage under these General WDRs must file with the Regional Board: (a) a Notice of Intent (NOI) to comply with the terms and conditions of these General WDRs or a Report of waste discharge (ROWD); (b) the applicable first annual fee as required by Title 23, CCR, Section 2200; (c) a project map; (d) evidence of California Environmental Quality Act (CEQA) compliance; and (e) a proposed monitoring plan. In addition, for projects that would affect groundwater management zones for which both maximum benefit and antidegradation TDS and nitrate-nitrogen objectives have been established in the Basin Plan, proposed dischargers must file with the NOI (or ROWD) documentation that demonstrates that the project is consistent with the applicable maximum benefit programs and commitments identified in the Basin Plan. This requirement may be satisfied by the submittal of a letter from the agency(-ies) responsible for the maximum benefit programs for the affected management zones that confirms that the proposed project is consistent with the maximum benefit program. Upon review by Regional Board staff, a determination will be made as to whether or not coverage under these General WDRs is appropriate. A letter from the Regional Board Executive Officer will notify the Discharger when coverage under these General WDRs is authorized and will include project-specific monitoring and reporting requirements. If necessary, individual requirements will be developed to address projects that cannot be authorized under these General WDRs.

9.15. A Negative Declaration in compliance with CEQA has been adopted for these General WDRs. The environmental impacts from new discharges authorized by these General WDRs have been found to be less than significant.

10.16. The Regional Board has notified interested agencies and persons of its intent to prescribe general waste discharge requirements ~~for groundwater cleanup discharges resulting from the cleanup of groundwater,~~ and has provided them with an opportunity to submit their written views and recommendations.

11.17. The Regional Board, in a public hearing, heard and considered all comments pertaining to these general waste discharge requirements ~~for discharges of treated groundwater resulting from groundwater cleanup projects.~~

IT IS HEREBY ORDERED that the Discharger, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder shall comply with the following:

A. DISCHARGE SPECIFICATIONS

1. ~~Discharges of constituents in excess of the following limits as the result of groundwater management zone recharge projects is prohibited: The discharge of wastes containing constituent concentrations in excess of the following limits is prohibited:~~

Constituent	5 Year <u>12 Month</u> Average Concentration Limit ¹
Total Dissolved Solids (TDS)	TDS Water Quality Objective <u>Recharge Limitations</u> as shown in the Attachment "A" corresponding to the affected Groundwater Management Zone
Total Inorganic Nitrogen (TIN)	TIN Water Quality Objective <u>Recharge Limitations</u> as shown in the Attachment "A" corresponding to the affected Groundwater Management Zone

2. The pH of the recharge water ~~discharge~~ shall be within the range of 6 to 9 pH units.
3. The ~~discharge of treated water through~~ injection wells/percolation of water used for recharge ~~trenches~~ shall not cause degradation of the receiving groundwater.

B. PROHIBITIONS

1. The discharge of TDS, nitrate-nitrogen or other constituents as the result of discharge recharge of water or of waste ~~discharge~~ that may adversely affect the beneficial uses of the groundwater is prohibited.
2. The recharge of water or ~~discharge of wastes~~ to property not owned or controlled by the discharger is prohibited.
3. The recharge of water or ~~discharge of any substances~~ in concentrations toxic to human, animal, plant or aquatic life is prohibited.

C. PROVISIONS

1. Neither the treatment nor the discharge of waste shall create, or threaten to create, a nuisance or pollution as defined by Section 13050 of the California Water Code.

¹ ~~12 Month~~ Five year average concentration limit means the highest allowable average of monthly discharges over the last ~~twelve~~ 60 months, calculated as the sum of all monthly discharges measured during last ~~twelve~~ sixty months divided by the number of monthly discharges measured during that time period.

2. For projects that would affect groundwater management zones with established TDS and nitrate-nitrogen objectives based on both “maximum benefit” and “antidegradation”, the Discharger shall obtain confirmation from the agency (-ies) responsible for implementing relevant maximum benefit commitments², as specified in Tables 5-8a, 5-9a and 5-10a of the Basin Plan, that their proposed project is consistent with the agency’s maximum benefit program. This confirmation shall be submitted as part of the NOI or ROWD. Absent this confirmation, the Discharger is required to comply with the TDS and nitrate-nitrogen limitations of this Order that are based on the antidegradation objectives.
3. The Executive Officer shall determine whether the proposed ~~discharge~~ recharge project is eligible for coverage under these general waste discharge requirements, after which, the Executive Officer may;
 - a. Authorize the proposed discharge by transmitting a "Discharge Authorization Letter" to the ~~discharge~~ recharge proponent (now an "authorized discharger") authorizing the initiation of the ~~discharge~~ recharge under the conditions of this Order and any other conditions consistent with this Order that are necessary to protect the beneficial uses of the receiving waters; or,
 - b. Require the ~~discharge~~ recharge proponent to obtain individual waste discharge requirements prior to any ~~discharge~~ recharge to waters of the State within the Santa Ana Region.
4. The discharge authorization letter from the Executive Officer shall specify any conditions necessary to protect the beneficial uses of the receiving waters and shall specify the Self-Monitoring Program for the proposed ~~discharge~~ recharge in accordance with this Order. The discharge authorization letter may be terminated or revised by the Executive Officer at any time.
5. The ~~discharger~~ ~~discharger~~ recharge ~~r~~ shall comply with all requirements of this Order and the terms, conditions and limitations of the discharge authorization letter.
6. The discharger shall comply with the monitoring and reporting program R8-2006-0005 issued by the Executive Officer. Revision of this monitoring and reporting program by the Executive Officer may be necessary to confirm that the discharger is in compliance with the requirements and provisions contained in this Order. Revisions may be made by the Executive Officer at any time during the term of this Order, and may include a reduction or an increase in the number of constituents to be monitored, the frequency of monitoring or the number and size of samples collected.
7. Compliance with the ~~5-year~~ ~~12-month~~ average limit specified under ~~Discharge~~ Recharge Specifications A.1. shall be determined by the ~~average~~ ~~arithmetic mean~~ of the last ~~sixty~~ ~~twelve~~ monthly averages.

² Includes the following agencies: Chino Basin Watermaster/Inland Empire Utilities Agency, the Yucaipa Valley Water District and the City of Beaumont/San Timoteo Watershed Management Authority

8. Compliance with the ~~discharge effluent~~ limitations shall be based on the practical quantitation levels (PQL) specified in Attachment "A" of M&RP No. R8-2006-0005 or on the lower detection limits achieved by the discharger. The ~~discharge recharge~~ shall be considered to be in compliance with an ~~discharge effluent~~ limitation that is less than or equal to the PQL specified in Attachment "A" of M&RP No. R8-2006-0005 if the arithmetic mean of all test results for the monitoring period is less than the constituent effluent limitation. Analytical results that are less than the specified PQL shall be assigned a value of zero.
9. Compliance determinations shall be based on available analyses for the time interval associated with the ~~discharge effluent~~ limitation. Where only one sample analysis is available in a specified time interval (e.g., weekly, monthly, quarterly), that sample shall serve to characterize the ~~discharge discharge recharge~~ for the entire interval.
10. Compliance based on a single sample analysis shall be determined where appropriate, as described below:
 - a. When the ~~discharge effluent~~ limitation is greater than or equal to the PQL, compliance shall be determined based on the ~~discharge effluent~~ limitation in either single or multiple sample analyses.
 - b. When the ~~discharge effluent~~ limitation is less than the PQL, compliance determinations based on analysis of a single sample shall only be undertaken if the concentration of the constituent of concern in the sample is greater than or equal to the PQL.
11. The discharger must comply with all of the requirements of this Order. Any violation of this Order constitutes a violation of the California Water Code and is grounds for enforcement action, termination of this Order, revocation and reissuance of this Order, denial of an application for reissuance of this Order, or a combination thereof.
12. The discharger shall take all reasonable steps to minimize or prevent any discharge that has a reasonable likelihood of adversely affecting human health or the environment.
13. The discharger shall take all reasonable steps to minimize any adverse impact to receiving waters resulting from noncompliance with any requirements specified in this Order, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.
14. The discharger shall maintain a copy of this Order at the site so that it is available to site operating personnel at all times. Key operating personnel shall be familiar with its content.
15. The discharger shall notify the Regional Board in advance of any planned physical alterations or additions to the permitted facility or changes in operation including any material change or proposed change in the character, location or volume of the discharge or activity that may result in noncompliance with these waste discharge requirements.

16. The discharger shall permit Board staff:
 - a. Entry upon premises in which an effluent source is located, or in which any required records are kept;
 - b. Access to copy any records required to be kept under the terms and conditions of this Order;
 - c. Inspection of monitoring equipment records; and
 - d. To sample any discharge.
17. The discharger shall report any discharge of waste that may endanger health or the environment. Any information shall be provided to the Executive Officer (909-782-4130) and the Office of Emergency Services (800-852-7550), if appropriate, as soon as the discharger becomes aware of the circumstances. A written report shall be submitted within five (5) days and shall contain a description of the discharge and its cause, the period of discharge, including exact dates and times and, if the discharge has not been corrected, the anticipated time it is expected to continue, and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the discharge.
18. The California Water Code provides that any person who violates a waste discharge requirement or a provision of the California Water Code is subject to civil penalties of up to \$5,000 per day, \$10,000 per day, or \$25,000 per day of violation, or when the violation involves the discharge of pollutants, is subject to civil penalties of up to \$10 per gallon per day, or \$20 per gallon per day of violation; or some combination thereof, depending on the violation, or upon the combination of violations.

D. REQUIRED REPORTS AND NOTICES

1. The discharger shall give advance notice to the Regional Board of any planned changes in the permitted facility or activity that may result in noncompliance with these waste discharge requirements.
2. In the event of any change in control or ownership of land or water ~~re~~ redischarge facilities currently owned or controlled by the discharger, the discharger shall notify the succeeding owner or operator of the existence of their authorization to discharge salts ~~recharge~~ ~~discharge wastewater~~ under this general permit by letter, a copy of which together with the signed agreement between previous owner and the new owner accepting responsibility and liability for complying with this general permit shall be forwarded to the Executive Officer.
3. Upon completion of the project, the discharger shall notify the Executive Officer of the Regional Board in writing about cessation of the discharge and shall request for termination of coverage under this general permit.

E. APPLICATION REQUIREMENTS

1. At least 60 days before the intended start of a new ~~re~~discharge ~~project~~ or individual permit expiration, the discharger shall submit an application for coverage under this Order. The authorization letter from the Executive Officer is required prior to commencement of the ~~project~~~~re~~discharge. The application shall consist of the following information:
 - a. Notice of Intent to be covered under this general permit.
 - b. A report that shall include the following:
 - 1) Characterization of the proposed ~~recharge water~~ ~~wastewater discharge~~. A representative water sample shall be analyzed for all 126-priority pollutants³ listed in Attachment B of the M&RP, TDS and nitrate-nitrogen.
 - 2) The name and location where groundwater recharge is planned;
 - 3) The groundwater management zone(s) that would be affected by the ~~recharge project~~~~discharge~~;
 - 4) The estimated average and maximum daily flow rates;
 - 5) The frequency and duration of the ~~recharge activity~~~~discharge~~;
 - 6) A description of the proposed treatment system (if appropriate); and
 - 7) A map showing locations and sizes of recharge basins or aquifer storage/recovery wells.
 - 8) For discharges ~~of salts resulting from recharge projects~~ that would affect groundwater management zones with both maximum benefit and antidegradation TDS and nitrate-nitrogen objectives, confirmation from the agency/-ies responsible for maximum benefit commitments (see Provisions C.2.) that the discharges ~~s are~~~~is~~ consistent with the maximum benefit program.
 - c. Any other information deemed necessary by the Executive Officer.

I, Gerard J. Thibeault, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, Santa Ana Region, on ~~May 19~~~~July 14~~, 2006.

Gerard J. Thibeault
Executive Officer

³ Test methods shall be in accordance with 40 CFR 136. For testing organic volatile compounds use EPA Method 8260 and report entire suite of detected constituents. The method detection limit and detection level attained shall also be reported with the test results.

Groundwater Management Zones	Discharge Water Quality Objective Recharge Limitations (mg/L)		
	TDS	TIN Limit for Reinjection	TIN Limit for Recharge/ Percolation Projects
Big Bear Valley*	220	5.0	6.67 7
Beaumont “maximum benefit” ⁺⁺	330 290 ⁴	5.0 ⁴	3.47 6.7
Beaumont “antidegradation” ⁺⁺	230	1.5	2.0 0
Bunker Hill – A	310	2.7	3.6 0
Bunker Hill – B	260 ⁵	5.57 7.3 ⁵	7.3 3
Colton	410	2.7	3.6 0
Chino – North “maximum benefit” ⁺⁺	300 420 ⁶	5.0	6.67 7
Chino 1 – “antidegradation” ⁺⁺	280	5.0	6.67 7
Chino 2 – “antidegradation” ⁺⁺	250	2.9	3.87 9
Chino 3 – “antidegradation” ⁺⁺	260	3.5	4.67 7
Chino – East @	730	10.0	5.60 13.3
Chino – South @	680	4.2	13.33 5.6
Cucamonga “maximum benefit” ⁺⁺	260 ⁶	5.0 ⁶	5.87 6.7
Cucamonga “antidegradation” ⁺⁺	210	2.4	3.2 0
Lytle	240 ⁵	1.5	2.0 0
Rialto	230	2.0	2.67 7

⁴ The Groundwater Management Zone has assimilative capacity created by the City of Beaumont and San Timoteo Watershed Management Authority (STWMA) as a result of implementation of maximum benefit commitments. Other parties seeking to utilize all or part of this assimilative capacity must obtain confirmation from City of Beaumont and STWMA that the project is consistent with their maximum benefit program. If confirmed by the City of Beaumont and STWMA, then the maximum benefit limitations apply. If not confirmed by the City of Beaumont and STWMA, then the antidegradation limitations specified for the management zone apply.

⁵ Discharge Limitations are based on current ambient water quality as shown in Tables 5-3 and 5-4 of the amended Basin Plan.

⁶ The Groundwater Management Zone has assimilative capacity created by IEUA and Chino Basin Watermaster as a result of implementation of maximum benefit commitments. Other parties seeking to utilize all or part of this assimilative capacity must obtain confirmation from IEUA and Chino Basin Watermaster that the project is consistent with their maximum benefit program. If confirmed by IEUA and Chino Basin Watermaster, then the maximum benefit limitations apply. If not confirmed IEUA and Chino Basin Watermaster, then the antidegradation limitations specified for the Chino 1, 2 and 3, and Cucamonga management zone apply.

General Groundwater Recharge Waste Discharge Requirements

Groundwater Management Zones	Discharge Water Quality Objective Recharge Limitations (mg/L)		
	TDS	TIN Limit for Reinjection	TIN Limit for Recharge/ Percolation Projects
San Timoteo "maximum benefit" ++	300 400 ⁷	5.0 ⁷	3.87 6.7
San Timoteo "antidegradation" ++	300	2.7	3.60
Yucaipa "maximum benefit" ++	370 30 ⁸	5.0	6.67 ⁷
Yucaipa "antidegradation" ++	320	4.2	5.60
Arlington	980	10	13.33
Bedford **	--	--	--
Coldwater	380	1.5	2.00
Elsinore	480	1.0	1.33
Lee Lake**	--	--	--
Riverside – A	440 ⁵	6.24 4.4 ⁵	5.87 ⁹
Riverside – B	290	7.6	10.13
Riverside – C	680	8.3	11.07 ¹
Riverside – D	810	10.0	13.33
Riverside – E	720	10.0	13.33
Riverside – F	580 4 ⁴ 580 ⁵	9.5	12.67 ⁷
Temescal	770	10.0	13.33
Warm Springs**	-	-	-

⁷ The Groundwater Management Zone has assimilative capacity created by the City of Beaumont, San Timoteo Watershed Management Authority (STWMA) and Yucaipa Valley Water District (YVWD) as a result of implementation of maximum benefit commitments. Other parties seeking to utilize all or part of this assimilative capacity must obtain confirmation from the City of Beaumont, STWMA and YVWD that the project is consistent with their maximum benefit program. If confirmed by the City of Beaumont, STWMA and YVWD, then the maximum benefit limitations apply. If not confirmed by the City of Beaumont, STWMA and YVWD, then the antidegradation limitations specified for the management zone apply.

⁸ The Groundwater Management Zone has assimilative capacity created by Yucaipa Valley Water District (YVWD) as a result of implementation of maximum benefit commitments. Other parties seeking to utilize all or part of this assimilative capacity must obtain confirmation from YVWD that the project is consistent with their maximum benefit program. If confirmed by YVWD, then the maximum benefit limitations apply. If not confirmed by YVWD, then the antidegradation limitations specified for the management zone apply.

General Groundwater Recharge Waste Discharge Requirements

Groundwater Management Zones	Discharge Recharge Limitations Water Quality Objective (mg/L)		
	TDS	TIN Limit for Reinjection	TIN Limit for Recharge/ Percolation Projects
SAN JACINTO RIVER BASIN			
Garner Valley*	300	2.0	2.676
Idyllwild Area**	--	--	--
Canyon	220 ⁵	2.51.6 ⁵	2.13
Hemet - South	730	4.1	5.475
Lakeview – Hemet North	520	1.8	2.40
Menifee	1020	2.8	3.73
Perris North	570	5.24.7 ⁵	6.273
Perris South	1260	2.5	3.33
San Jacinto – Lower	520	1.0	1.33
San Jacinto – Upper	320	1.4	1.879

A. LOWER SANTA ANA RIVER BASIN	Discharge Recharge Limitations (mg/L)		
	TDS	TIN Limit for Reinjection	TIN Limit for Recharge/ Percolation Projects
La Habra**	--	--	--
Santiago **	--	--	--
Orange	580	3.4	4.53
Irvine	910	5.9	7.879

~~++ "Maximum benefit" objectives apply unless Regional Board determines that the maximum benefit commitments shown in Tables 5-8a, 5-9a and 5-10a of the Basin Plan are not being met; in that case, "antidegradation" objectives would apply (see discussion in Chapter 5 of the Basin Plan).~~

Attachment “A”

Order No. R8-2006-0005

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General Groundwater Recharge Waste Discharge Requirements

** Numeric objectives not established; narrative objectives apply. Discharge requirements for salt discharges resulting from recharge projects within these groundwater management zones will be considered on an individual basis.

California Regional Water Quality Control Board
Santa Ana Region

Monitoring and Reporting Program No. R8-2006-0005

GENERAL WASTE DISCHARGE REQUIREMENTS FOR THE DISCHARGE OF SALTS THROUGH INJECTION/PERCOLATION OF IMPORTED STATE PROJECT WATER, COLORADO RIVER WATER OR IMPORTED WELL WATER TO RECHARGE GROUNDWATER MANAGEMENT ZONES WITHIN THE SANTA ANA REGION

A. MONITORING REQUIREMENTS

1. All chemical and bacteriological analyses shall be conducted at a laboratory certified for such analyses by the California Department of Health Services Environmental Laboratory Accreditation Program (ELAP) or approved by the Executive Officer. A copy of the laboratory certification shall be submitted with the annual summary report.
2. All sampling and sample preservation shall be in accordance with the current edition of “*Standard Methods for the Examination of Water and Wastewater*” (American Public Health Association).
3. All analytical data shall be reported with method detection limits (MDLs)¹, and with identification of either minimum level (ML)² practical quantitation levels (PQLs)³ or limits of quantitation (LOQs).
4. Laboratory data must quantify each constituent down to the Practical Quantitation Levels specified in Attachment "A" or to “Detection Limits for purposes of Reporting (DLRs)” by the California Department of Health Services. Any internal quality control data associated with the sample must be reported when requested by the Executive Officer. The Regional Board will reject the quantified laboratory data if quality control data is unavailable or unacceptable. All QA/QC analyses must be run on the same dates when samples were actually analyzed. The Discharger shall make available for inspection and/or submit the QA/QC documentation upon request by Regional Board staff. Proper chain of custody procedures must be followed and a copy of that documentation shall be furnished upon request by Regional Board staff.

¹ MDL is the minimum concentration of a substance that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero, as defined in 40 CFR 136, Appendix B, revised as of May 14, 1999.

² Minimum level is the concentration at which the entire analytical system must give a recognizable signal and acceptable point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method specified sample weights, volumes, and processing steps have been followed.

³ PQL is the lowest concentration of a substance that can be determined within ± 20 percent of the true concentration by 75 percent of the analytical laboratories tested in a performance evaluation study. Alternatively, if performance data are not available, the PQL is the method detection limit (MDL) $\times 5$ for carcinogens and MDL $\times 10$ for noncarcinogens.

5. All monitoring instruments and devices used by the discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy.
6. The flow measurement system shall be calibrated at least once per year or more frequently, to ensure continued accuracy.
7. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. Influent samples shall be taken at each point of inflow to the treatment system and shall be representative of the influent to the treatment system. Effluent samples shall be taken downstream of the last addition of waste to the treatment or discharge works where a representative sample may be obtained prior to mixing with the receiving waters.
8. Whenever the discharger monitors any pollutant more frequently than is required by this Order, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the discharge monitoring report specified by the Executive Officer.
9. The discharger may request a reduction in the constituents to be monitored and/or a reduction in monitoring frequency for a specific constituent(s) subject to the approval of the Executive Officer.
10. The discharger shall assure that records of all monitoring information are maintained and accessible for a period of at least five years from the date of the sample, report, or application. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge or by the request of the Board at any time. Records of monitoring information shall include:
 - a. The date, exact place, and time of sampling or measurements;
 - b. The individual(s) who performed the sampling, and/or measurements;
 - c. The date(s) analyses were performed;
 - d. The individual(s) who performed the analyses;
 - e. The analytical techniques or methods used;
 - f. All sampling and analytical results;
 - g. All monitoring equipment calibration and maintenance records;
 - h. All original strip charts from continuous monitoring devices;
 - i. All data used to complete the application for this Order; and,
 - j. Copies of all reports required by this Order.
11. Unless otherwise specified, ~~discharge~~-recharge flows shall be reported in terms of daily average ~~discharge~~-recharge flows. The results of all monitoring required by this Order shall be reported to the Board, and shall be submitted in such a format as to allow direct comparison with the limitations and requirements of this Order.

12. The discharger shall deliver a copy of each monitoring report in the appropriate format to:

California Regional Water Quality Control Board
Santa Ana Region
3737 Main Street, Suite 500
Riverside, CA 92501-3348

13. A “grab” sample is defined as any individual sample collected in less than 15 minutes.
14. Daily samples shall be collected on each day of the week.
15. Weekly samples shall be collected on a representative day of each week.
16. Monthly samples shall be collected on a representative day of the month.
17. Annual samples shall be collected by the 10th working day of the following months:

Year	Annual Sampling Month
2006-2010	June, September, December, March, respectively
2011-2014	February, May, August, November, respectively
2015-2018	April, July, October, January, respectively

B. MONITORING OF STATE PROJECT WATER/COLORADO RIVER WATER/OTHER IMPORTED WATER FOR RECHARGE

1. A sampling station shall be established for each point of recharge and shall be located where representative samples of the water for recharge can be obtained. The following shall constitute the recharge water monitoring program:

Table I			
<u>Chemical</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Minimum Frequency of Sampling and Analysis</u>
Total Water Flow	Mgd	Flow meter/totalizer	Continuous
Total Nitrogen ⁴	mg/L	Grab ⁵	Quarterly

⁴ Total Nitrogen is defined as the sum of nitrate, nitrite, ammonia, and organic nitrogen concentrations, expressed as nitrogen.

⁵ Grab sample is an individual sample collected in a short period of time not exceeding 15 minutes. Grab samples shall be collected during normal peak loading conditions for the parameter of interest, which may or may not be during hydraulic peaks.

Table I			
<u>Chemical</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Minimum Frequency of Sampling and Analysis</u>
Nitrate Nitrogen	mg/L	Grab ⁶	Quarterly
Total Inorganic Nitrogen	"	"	"
Total Organic Carbon	"	"	"
Total Dissolved Solids	"	"	"
1-4 Dioxane	µg/L	"	"
Total Trihalomethanes (TTHM) ⁷	"	"	"
N-Nitrosodimethylamine (NDMA)	"	"	"
Methyl-tert-butyl ether (MTBE)	"	"	"
Perchlorate	"	"	"
<u>Inorganic Chemical</u>			
Aluminum	µg/L	Grab	Annually
Antimony	"	"	"
Arsenic	"	"	"
Asbestos	MFL	"	"
Barium	µg/L	Grab	"
Beryllium	"	"	"
Cadmium	"	"	"
Chromium	"	"	"
Cyanide	"	"	"
Fluoride	"	"	"
Mercury	"	"	"
Nickel	"	"	"
Selenium	"	"	"
Thallium	µg/L	Grab	"
<u>Volatile Organic Chemicals (VOC)</u>			
Benzene	µg/L	Grab	Annually
Carbon Tetrachloride	"	"	"
1,2-Dichlorobenzene	"	"	"
1,4-Dichlorobenzene	"	"	"
1,1-Dichloroethane	"	"	"
1,2-Dichloroethane	"	"	"
1,1-Dichloroethylene	µg/L	Grab	Annually
Cis-1,2-Dichloroethylene	"	"	"
trans-1,2-Dichloroethylene	"	"	"
Dichloromethane	"	"	"
1,2-Dichloropropane	"	"	"
1,3-Dichloropropene	"	"	"

⁶ Grab sample is an individual sample collected in a short period of time not exceeding 15 minutes. Grab samples shall be collected during normal peak loading conditions for the parameter of interest, which may or may not be during hydraulic peaks.

⁷ Sum of bromodichloromethane, dibromochloromethane, bromoform, and chloroform.

Table I			
<u>Chemical</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Minimum Frequency of Sampling and Analysis</u>
Ethylbenzene	“	“	“
Monochlorobenzene	“	“	“
Styrene	“	“	“
1,1,2,2-Tetrachloroethane	“	“	“
Tetrachloroethylene	“	“	“
Toluene	“	“	“
1,2,4-Trichlorobenzene	“	“	“
1,1,1 Trichloroethane	“	“	“
1,1,2-Trichloroethane	“	“	“
Trichloroethylene	“	“	“
Trichlorofluoromethane	“	“	“
1,1,2-Trichloro-1,2,2-Trifluoroethane	“	“	“
Vinyl Chloride	“	“	“
Xylenes ⁸	“	Grab	Annually
<u>Non-Volatile Synthetic Organic Chemicals (SOCs)</u>			
Alachlor	µg/L	Grab	Annually
Atrazine	“	“	“
Bentazon	“	“	“
Benzo(a)pyrene	“	“	“
Carbofuran	“	“	“
Chlordane	“	“	“
2,4-D	“	“	“
Dalapon	“	“	“
Dibromochloropropane (DBCP)	“	“	“
Di(2-ethylhexyl)adipate	“	“	“
Di(2-ethylhexyl)phthalate	“	“	“
Dinoseb	“	“	“
Diquat	“	“	“
Endothall	“	“	“
Endrin	“	“	“
Ethylene Dibromide (EDB)	“	“	“
Glyphosate	“	“	“
Heptachlor	“	“	“
Heptachlor Epoxide	“	“	“
Hexachlorobenzene	µg/L	Grab	Annually
Hexachlorocyclopentadiene	“	“	“
Lindane	“	“	“
Methoxychlor	“	“	“
Molinate	“	“	“
Oxamyl	“	“	“

⁸ Limit is for either a single isomer or the sum of the isomers.

Table I			
<u>Chemical</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Minimum Frequency of Sampling and Analysis</u>
Pentachlorophenol	“	“	“
Picloram	“	“	“
Polychlorinated Biphenyls	“	“	“
Simazine	“	“	“
Thiobencarb	“	“	“
Toxaphene	“	“	“
2,3,7,8-TCDD (Dioxin)	“	“	“
2,4,5-TP (Silvex)	“	“	“
<u>Disinfection By-products</u>			
	$\mu\text{g/L}$	Grab	Annually
Total Haloacetic acids (five) (HAA5) ⁹	“	“	“
Bromate	“	“	“
Chlorite	“	“	“
<u>Notification Levels</u>			
Copper	$\mu\text{g/L}$	Grab	Annually
Lead	“	“	“
<u>Radionuclides</u>			
Combined Radium-226 and Radium-228	pCi/l	Grab	Annually
Gross Alpha particle activity (including Radium-226 but excluding Radon and Uranium)	pCi/l	Grab	“
Tritium	“	“	“
Strontium-90	“	“	“
Gross Beta particle activity	“	“	“
Uranium	pCi/l	Grab	“

⁹

Sum of monochloroacetic acid, dichloroacetic acid, trichloroacetic acid, monobromoacetic acid, and dibromoacetic acid),

2. The monitoring frequency for those pollutants that are detected during the required quarterly monitoring at a concentration greater than those concentrations shown in the Table below, shall be accelerated to monthly. To return to the monitoring frequency specified, the discharger shall request and receive approval from the Regional Water Board's Executive Officer or designee. If the detected concentrations are persistent and considerable, the discharger shall implement measures to reduce discharges of such constituent(s) into the ground. The discharger shall submit for approval by the Regional Board Executive Officer of the measures that will be implemented to reduce discharges of such constituents.

Parameter	Concentration (ug/L)
1-4 Dioxane	3 ¹⁰
N-Nitrosodimethylamine (NDMA)	0.01 ¹⁰
Perchlorate	6 ¹⁰
Methyl-tert-butyl ether (MTBE)	13 ¹¹
Total Trihalomethanes (THM)	100 ¹¹

C. MONITORING OF DIVERTED STORMWATER FOR RECHARGE:

1. A sampling station shall be established for each point of recharge and shall be located where representative samples of the water for recharge can be obtained. The following shall constitute the recharge water monitoring program:

Table II			
<u>Chemical</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Minimum Frequency of Sampling and Analysis</u>
Total Water Flow	mgd	Flow meter/totalizer	Continuous
Total Nitrogen ¹²	mg/L	Grab ¹³	Quarterly
Nitrate Nitrogen	"	"	"
Total Inorganic Nitrogen	"	"	"
Total Organic Carbon	"	"	"
Total Dissolved Solids	"	"	"
1-4 Dioxane	µg/L	"	"
Total Trihalomethanes (TTHM) ¹⁴	"	"	"
N-Nitrosodimethylamine (NDMA)	"	"	"

¹⁰ Based on CDHS' notification Level

¹¹ Based on CDHS' MCL

¹² Total Nitrogen is defined as the sum of nitrate, nitrite, ammonia, and organic nitrogen concentrations, expressed as nitrogen.

¹³ Grab sample is an individual sample collected in a short period of time not exceeding 15 minutes. Grab samples shall be collected during normal peak loading conditions for the parameter of interest, which may or may not be during hydraulic peaks.

¹⁴ Sum of bromodichloromethane, dibromochloromethane, bromoform, and chloroform.

Table II			
<u>Chemical</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Minimum Frequency of Sampling and Analysis</u>
Methyl-tert-butyl ether (MTBE)	µg/L	Grab ¹³	Quarterly
Perchlorate	“	“	“

D. REPORTING:

1. The results of the above analyses shall be reported to the Regional Board within 24 hours of finding any discharge that is in violation of the ~~red~~discharge specifications.
2. Monitoring reports shall be submitted by the 30th day of each month and shall include:
 - a. The total daily volume of recharged/percolated or re-injected water (State Project water, Colorado River Water, imported well water, and diverted stormwater), and
 - b. The results of all chemical analyses for the previous month, and annual samples whenever applicable,
 - c. A summary of the month's activities.
3. If no ~~recharged~~discharge occurs during the previous monitoring period, a letter to that effect shall be submitted in lieu of a monitoring report.
4. All reports shall be arranged in a tabular format to clearly show compliance or noncompliance with each ~~discharge~~recharge specification.
5. For every item where the requirements are not met, the discharger shall submit a statement of the actions undertaken or proposed which will bring the ~~discharge~~recharge into full compliance with requirements at the earliest time and submit a timetable for correction.
6. Upon completion of the project, the discharger shall notify the Executive Officer of the Regional Board in writing about cessation of the ~~discharge~~recharge and request for a rescission of this Order.

All reports shall be signed by a responsible officer or duly authorized representative of the discharger and shall be submitted under penalty of perjury.

Ordered by _____
Gerard J. Thibeault
Executive Officer

~~May 19 July 14, 2006~~

PRACTICAL QUANTITATION LEVELS FOR COMPLIANCE DETERMINATION		
Constituent	PQL µg/l	Analysis Method
1 Arsenic	7.5	GF/AA
2 Barium	20.0	ICP/GFAA
3 Cadmium	15.0	ICP
4 Chromium (VI)	15.0	ICP
5 Cobalt	10.0	GF/AA
6 Copper	19.0	GF/ICP
7 Cyanide	50.0	335.2/335.3
8 Iron	100.0	ICP
9 Lead	26.0	GF/AA
10 Manganese	20.0	ICP
11 Mercury	0.50	CV/AA
12 Nickel	50.0	ICP
13 Selenium	2.0	EPA Method 1638, 1640 or 7742
14 Silver	16.0	ICP
15 Zinc	20.0	ICP
16 1,2 - Dichlorobenzene	5.0	601/602/624
17 1,3 - Dichlorobenzene	5.0	601
18 1,4 - Dichlorobenzene	5.0	601
18 2,4 - Dichlorophenol	10.0	604/625
20 4 - Chloro -3- methylphenol	10.0	604/625
21 Aldrin	0.04	608
22 Benzene	1.0	602/624
23 Chlordane	0.30	608
24 Chloroform	5.0	601/624
25 DDT	0.10	608
26 Dichloromethane	5.0	601/624
27 Dieldrin	0.10	608
28 Fluorantene	10.0	610/625
29 Endosulfan	0.50	608
30 Endrin	0.10	608
31 Halomethanes	5.0	601/624
32 Heptachlor	0.03	608
33 Heptachlor Epoxide	0.05	608
34 Hexachlorobenzene	10.0	625
35 Hexachlorocyclohexane		
Alpha	0.03	608
Beta	0.03	608
Gamma	0.03	608
36 PAH's	10.0	610/625
37 PCB	1.0	608
38 Pentachlorophenol	10.0	604/625
39 Phenol	10.0	604/625
40 TCDD Equivalent	0.05	8280
41 Toluene	1.0	602/625
42 Toxaphene	2.0	608
43 Tributyltin	0.02	GC
44 2,4,6-Trichlorophenol	10.0	604/625

EPA PRIORITY POLLUTANT LIST		
Metals	Acid Extractibles	Base/Neutral Extractibles (continuation)
1. Antimony	45. 2-Chlorophenol	91. Hexachloroethane
2. Arsenic	46. 2,4-Dichlorophenol	92. Indeno (1,2,3-cd) Pyrene
3. Beryllium	47. 2,4-Dimethylphenol	93. Isophorone
4. Cadmium	48. 2-Methyl-4,6-Dinitrophenol	94. Naphthalene
5a. Chromium (III)	49. 2,4-Dinitrophenol	95. Nitrobenzene
5b. Chromium (VI)	50. 2-Nitrophenol	96. N-Nitrosodimethylamine
6. Copper	51. 4-Nitrophenol	97. N-Nitrosodi-N-Propylamine
7. Lead	52. 3-Methyl-4-Chlorophenol	98. N-Nitrosodiphenylamine
8. Mercury	53. Pentachlorophenol	99. Phenanthrene
9. Nickel	54. Phenol	100. Pyrene
10. Selenium	55. 2, 4, 6 – Trichlorophenol	101. 1,2,4-Trichlorobenzene
	Base/Neutral Extractibles	Pesticides
11. Silver	56. Acenaphthene	102. Aldrin
12. Thallium	57. Acenaphthylene	103. Alpha BHC
13. Zinc	58. Anthracene	104. Beta BHC
Miscellaneous	59. Benzidine	105. Delta BHC
14. Cyanide	60. Benzo (a) Anthracene	106. Gamma BHC
15. Asbestos (not required unless requested)	61. Benzo (a) Pyrene	107. Chlordane
16. 2,3,7,8-Tetrachlorodibenzo-P-Dioxin (TCDD)	62. Benzo (b) Fluoranthene	108. 4, 4' - DDT
Volatile Organics	63. Benzo (g,h,i) Perylene	109. 4, 4' - DDE
17. Acrolein	64. Benzo (k) Fluoranthene	110. 4, 4' - DDD
18. Acrylonitrile	65. Bis (2-Chloroethoxy) Methane	111. Dieldrin
19. Benzene	66. Bis (2-Chloroethyl) Ether	112. Alpha Endosulfan
20. Bromoform	67. Bis (2-Chloroisopropyl) Ether	113. Beta Endosulfan
21. Carbon Tetrachloride	68. Bis (2-Ethylhexyl) Phthalate	114. Endosulfan Sulfate
22. Chlorobenzene	69. 4-Bromophenyl Phenyl Ether	115. Endrin
23. Chlorodibromomethane	70. Butylbenzyl Phthalate	116. Endrin Aldehyde
24. Chloroethane	71. 2-Chloronaphthalene	117. Heptachlor
25. 2-Chloroethyl Vinyl Ether	72. 4-Chlorophenyl Phenyl Ether	118. Heptachlor Epoxide
26. Chloroform	73. Chrysene	119. PCB 1016
27. Dichlorobromomethane	74. Dibenzo (a,h) Anthracene	120. PCB 1221
28. 1,1-Dichloroethane	75. 1,2-Dichlorobenzene	121. PCB 1232
29. 1,2-Dichloroethane	76. 1,3-Dichlorobenzene	122. PCB 1242
30. 1,1-Dichloroethylene	77. 1,4-Dichlorobenzene	123. PCB 1248
31. 1,2-Dichloropropane	78. 3,3'-Dichlorobenzidine	124. PCB 1254
32. 1,3-Dichloropropylene	79. Diethyl Phthalate	125. PCB 1260
33. Ethylbenzene	80. Dimethyl Phthalate	126. Toxaphene
34. Methyl Bromide	81. Di-n-Butyl Phthalate	
35. Methyl Chloride	82. 2,4-Dinitrotoluene	
36. Methylene Chloride	83. 2-6-Dinitrotoluene	
37. 1,1,2,2-Tetrachloroethane	84. Di-n-Octyl Phthalate	
38. Tetrachloroethylene	85. 1,2-Dipenylhydrazine	
39. Toluene	86. Fluoranthene	
40. 1,2-Trans-Dichloroethylene	87. Fluorene	
41. 1,1,1-Trichloroethane	88. Hexachlorobenzene	
42. 1,1,2-Trichloroethane	89. Hexachlorobutadiene	
43. Trichloroethylene	90. Hexachlorocyclopentadiene	
44. Vinyl Chloride		